

PERIOD

Curated Practice Problem Set

Unit 1 Lesson 6 Cumulative Practice Problems

1. Which of the following constructions would help to construct a line passing through point *C* that is perpendicular to the line *AB*?



- A. Construction of an equilateral triangle with one side AB
- B. Construction of a hexagon with one side BC
- C. Construction of a perpendicular bisector through C
- D. Construction of a square with one side AB
- 2. Two distinct lines, ℓ and m, are each perpendicular to the same line n. Select **all** the true statements.
 - A. Lines ℓ and m are perpendicular.
 - B. Lines ℓ and n are perpendicular.
 - C. Lines *m* and *n* are perpendicular.
 - D. Lines ℓ and m are parallel.
 - E. Lines ℓ and n are parallel.
 - F. Lines *m* and *n* are parallel.
- 3. This diagram is a straightedge and compass construction of the bisector of angle *BAC*. Only angle *BAC* is given. Explain the steps of the construction in order. Include a step for each new circle, line, and point.



(From Unit 1, Lesson 5.)



NAME

DATE 4. This diagram is a straightedge and compass construction of a line perpendicular to line *AB* passing through point *C*. Which segment has the same length as segment *EA*?



A.EC B.ED

C. *BE*

D.BD

(From Unit 1, Lesson 5.)

5. This diagram is a straightedge and compass construction. Which triangle is equilateral? Explain how you know.



(From Unit 1, Lesson 4.)

6. In the construction, *A* is the center of one circle, and *B* is the center of the other. Name the segments in the diagram that have the same length as segment *AB*.



(From Unit 1, Lesson 2.)



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7. This diagram is a straightedge and compass construction. *A* is the center of one circle, and *B* is the center of the other.

- a. Name a pair of perpendicular line segments.
- b. Name a pair of line segments with the same length.

(From Unit 1, Lesson 3.)

8. *A*, *B*, and *C* are the centers of the 3 circles. Select **all** the segments that are congruent to *AB*.





A.*HF* B.*HA* C.*CE*

D.*CD*

E. *BD*

F. *BF*

(From Unit 1, Lesson 4.)

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